

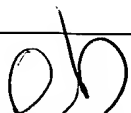


UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/797,015	03/11/2004	Reginald A. Mbachu	842 C9/6014	3908
7590 08/10/2004			EXAMINER	
Shanley & Baker 2233 Wisconsin Avenue, N.W. Washington, DC 20007			FONTAINE, MONICA A	
			ART UNIT	PAPER NUMBER
			1732	
DATE MAILED: 08/10/2004				

Please find below and/or attached an Office communication concerning this application or proceeding.

<p align="center">Office Action Summary</p>	<p>Application No.</p> <p>10/797,015</p>	<p>Applicant(s)</p> <p>MBACHU ET AL.</p>	
	<p>Examiner</p> <p>Monica A Fontaine</p>	<p>Art Unit</p> <p>1732</p>	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 March 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 11 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Parigi et al. (U.S. Patent 5,619,038), in view of Wirtz (U.S. Patent 3,196,072). Regarding Claim 1, Parigi et al., hereafter "Parigi," show that it is known to carry out a method for calibrating electromagnetic-radiation spectroscopic instrumentation so as to enable quantitative analyses of curable resin, as applied to a substantially planar veneer wood sheet surface area during inline movement of the sheet toward assembly of multiple ply bundles for producing engineered composite wood veneer product (Abstract), comprising providing spectroscopic instrumentation enabling selecting wood surface penetrative wavelengths of electromagnetic radiation in a range of about 350nm to about 2500nm (Column 4, lines 1-6, 51-67; Column 5, lines 1-19); quantitatively pre-establishing predetermined surface application of said resin, at a selected level of weight per specified surface area, for individual reference source wood veneer test samples (Column 5, lines 20-39); positioning spectroscopic instrumentation providing electromagnetic radiation in a range of wavelengths including wavelengths absorbed by said resin and capable of penetrating wood veneer of said test samples (Column 5, lines 28-39); illuminating a predetermined surface area of said pre-established resin application of said test samples with

Art Unit: 1732

visible light and simultaneously irradiating with near infra-red, during conveyed movement of said test samples relative to said instrumentation (Column 5, lines 28-39); quantitatively measuring radiation absorbance by pre-established resin applications to individual respective test samples, for calibrating said spectroscopic instrumentation, during said controlled rate of movement with respect to said instrumentation (Column 5, lines 40-67). Parigi does not show supporting said test samples with pre-established resin application for movement on a conveyance, or controlling rate of movement of said conveyed test samples. Wirtz shows that it is known to carry out a method of inspecting of a substantially planar veneer wood sheet surface, comprising supporting said test samples with pre-established resin application for movement on a conveyance (Column 3, lines 11-31) and controlling rate of movement of said conveyed test samples with respect to said instrumentation, and coordinating said rate of movement with a selected in-line controlled rate of movement for lay-up of veneer wood plies for commercial production of said engineered composite veneer wood product (Column 6, lines 28-67). Wirtz and Parigi are combinable because they are concerned with a similar technical field, namely, that of processes which analyze the content of wood materials. It would have been prima facie obvious to one of ordinary skill in the art at the time the invention was made to use Wirtz's controlled conveying device in Parigi's analyzing process in order to avoid inaccurate data due to unusual fluctuations in the speed at which the samples travel under the analytical instrumentation.

Regarding Claim 2, Parigi shows the process as claimed as discussed in the rejection of Claim 1 above, including a method further including utilizing spectral data responsive to absorbance of selected radiation wavelengths, by said pre-established resin applications on said

Art Unit: 1732

test samples, for calibrating said spectroscopic instrumentation for monitoring resin application, during commercial production of veneer wood product, by verifying that a linear relationship exists between spectroscopically determined absorbance of said selected wavelengths by applied resin and said quantitatively pre-established resin application on respective individual test samples (Figure 6; Column 5, lines 40-67), meeting applicant's claim.

Regarding Claim 3, Parigi shows the process as claimed as discussed in the rejection of Claims 1 and 2 above, including a method comprising establishing resin application on said test samples so as to present an incrementally progressive quantitative resin application for veneer wood of respective test samples, with said quantitative resin application being capable of being related to a resin weight per specified surface area, during commercial production of a veneer wood product (Column 12, lines 31-54); receiving spectral data, in the form of non-absorbed radiant energy, of said selected wavelengths, as reflected back by said conveyed wood veneer test samples, for spectroscopically determining absorbance of said selected wavelengths by said applied resin (Column 5, lines 40-67); and mathematically calculating radiation absorbance of resin applied to respective test samples, for establishing a linear relationship between absorbance of selected wavelengths and quantitative resin application on said individual test samples for calibrating said spectroscopic instrumentation for use during said commercial production (Figure 6), meeting applicant's claim.

Claims 6-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Parigi, in view of Tanzer et al. (U.S. Patent 6,461,743). Regarding Claim 6, Parigi shows that it is known to carry out a method, utilizing calibrated electromagnetic radiation spectroscopic instrumentation,

Art Unit: 1732

for quantitatively monitoring curable adhesive resin as applied online to a selected surface area of a veneer wood product, prior to assembly into a bundle comprising multiple plies (Abstract), comprising selecting placement of calibrated spectroscopic instrumentation for selective monitoring of resin application width-wise across a selected portion of said surface area intermediate said lateral edges of said elongated sheets (Column 5, lines 20-67); selecting electromagnetic radiation wavelengths having a peak absorbance by said applied resin (Column 5, lines 28-39); irradiating said selected wavelengths across said portion of resin applied surface area of said sheet during said travel of said sheets (Column 5, lines 20-67); sensing radiation absorbance of selected wavelengths by quantitatively measuring reflected-back radiation by wood matrix of said wood veneer sheet (Column 9, lines 8-15), and quantitatively indicating average resin application weight as applied across said portion of said sheet surface area while said sheets are moving inline toward multiple ply bundle assembly (Column 9, lines 8-15).

Parigi does not show specifically conveying elongated veneer wood sheets inline. Tanzer et al., hereafter "Tanzer," show that it is known to carry out a method of making a wood product including conveying elongated veneer wood sheets inline, for longitudinal travel in the direction of sheet length, presenting a pair of substantially-planar opposed surface areas intermediate sheet lateral edges, for lay-up assembly of bundles of multiple plies, subsequent to application of said resin (Column 1, lines 39-44) and supplying said resin for at least a single resin applicator as oriented for width-wise application of resin across a substantially planar surface area of a wood veneer sheet, which surface area of resin application is extended longitudinally by travel inline of said sheets toward said lay-up assembly (Column 5, lines 1-59; Column 7, lines 29-33). It is noted by the examiner that the limitation of the applicator being "substantially co-extensive

Art Unit: 1732

width-wise with said applicator width” is solely an apparatus limitation whose effect on the method steps is not clear. Therefore, it is being held that it would have been prima facie obvious to one of ordinary skill in the art at the time the invention was made to make the applicator substantially co-extensive width-wise with said applicator width as a logical improvement of the apparatus in order to improve the fluidity of the method steps (See *Stalego and Drummond v. Heymes and Peyches*, 120 USPQ 473 (CCPA 1959); *Ex parte Pfeiffer*, 135 USPQ 31). It would have been prima facie obvious to one of ordinary skill in the art at the time the invention was made to use Tanzer’s conveying and applying process in Parigi’s molding method in order to provide an efficient and timely method of transporting and producing the desired wood materials.

Regarding Claim 7, Parigi shows the process as claimed as discussed in the rejection of Claim 6 above, including selecting a single position for placement of spectroscopic instrumentation so as to cover a selected widthwise portion of the surface area, between lateral edges of said sheets, which is longitudinally extended by inline travel of said sheets (Figure 5), meeting applicant’s claim.

Regarding Claim 8, Parigi shows the process as claimed as discussed in the rejection of Claims 6 and 7 above, including a method further including enabling measurement of electromagnetic radiation absorbance by applied resin and absorbed moisture of resin and of said wood veneer, by selecting electromagnetic radiation wavelengths in the range of 1000nm to 1800nm (Column 4, lines 1-6, 51-67; Column 5, lines 1-19), meeting applicant’s claim.

Regarding Claim 9, Parigi shows the process as claimed as discussed in the rejection of Claim 6 above, but does not show selecting a plurality of positions for the spectroscopic instrumentation so as to enable monitoring average resin application during travel of sheets along

Art Unit: 1732

said direction of travel, at each of said plurality of selected positions intermediate lateral edges of said sheets; selecting each of said plural positions for placement of electromagnetic spectroscopic instrumentation, for monitoring average resin application by each, which is extended longitudinally by said travel of said sheets for indicating resin application along said direction of travel at each selected instrumentation position. However, to duplicate parts for a multiplied effect is an obvious modification of an apparatus (See *St. Regis Paper Co. v. Bemis Co.*, 193 USPQ 8, 11). It would have been prima facie obvious to one of ordinary skill in the art at the time the invention was made to use a plurality of spectroscopic instrumentation devices in order to exclusively pinpoint the location of an error or unusual resin application along the entire length of the sheets.

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1 and 3-5 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1, 7, 5, and 6, respectively, of copending Application No. 10/294296. Although the conflicting claims are not identical, they

Art Unit: 1732

are not patentably distinct from each other because the instant claims do not include a requirement of using a calibration curve. However, it would have been prima facie obvious to one of ordinary skill in the art at the time the invention was made to use a calibration curve for calibrating an analytical instrument in order to follow known calibration procedures and methods.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Claims 6 and 7 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 7 of copending Application No. 10/294296, hereafter "'296". Although the conflicting claims are not identical, they are not patentably distinct from each other because the claims of '296 do not show the instantly-claimed limitation of extending the area of applied resin longitudinally. However, it would have been prima facie obvious to one of ordinary skill in the art at the time the invention was made to observe this event, given the supplying of the resin as the sheet travels in an inline fashion.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Claims 1-3 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1 and 2 of copending Application No. 10/338069. Although the conflicting claims are not identical, they are not patentably distinct from each other because the instant claims do not include a requirement of

Art Unit: 1732

using a calibration curve. However, it would have been prima facie obvious to one of ordinary skill in the art at the time the invention was made to use a calibration curve for calibrating an analytical instrument in order to follow known calibration procedures and methods.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The following patents are cited to further show the state of the art with regard to manufacturing of wood products:

U.S. Patent 4,508,772 to Churchland et al.

U.S. Patent 5,104,485 to Weyer

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Monica A Fontaine whose telephone number is 571-272-1198. The examiner can normally be reached on Monday-Friday 7:30am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mike Colaianni can be reached on 571-272-1196. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 1732

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Maf

Maf
July 29, 2004



MICHAEL P. COLAIANNI
SUPERVISORY PATENT EXAMINER